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fin and out over the tail from which they appeared to drop off into the open water. Due to the rapid movements of the fish, the eggs were flung in all directions by centrifugal force. The central whirling mass, the fish itself, and the long stream of eggs flying off in all directions reminded the writer of nothing so much as the pyrotechnic pinwheels of old time independence day celebrations. By the time the orgasm was three-quarters over the water became so clouded with milt and eggs that very little could be seen of the whirling specimens. The other occupants of the tanks appeared to simply "sit by" and watch.

On a previous night, Feb. 22, also at 3 A. M., two females in one of the large glass fronted aquariums, went through a similar performance, but the males in the tank took no part. Why they failed to, the writer will not venture to speculate upon, as many were present which were perfectly ripe. The impression was gathered, however, that the males were much less interested in the proceedings in general, than the females. The belief is that this is an abnormal condition due to the fright or disturbance of confinement, and that while the males can usually hold their milt the females get to a point where it is imperative that the eggs be discharged, thereby bringing about this apparent reversal of sexual instincts. Probably in a state of nature the actual spawning is performed in a rather similar manner, but very likely the male urges the female on in a manner not observed in confined specimens.

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EXTENSION OF THE RANGE OF *ASCAPHUS TRUEI* STEJNEGER.

Three specimens, two males and a female, of *Ascaphus truei* Stejneger, the Discoglossoid toad, were collected on September 21, 1921, in the Cascade

Mountains near North Bend, Washington, at an elevation of about 2,000 feet.

This toad, found originally at Humptulips, Washington, in the southern region of the Olympic Mountains, was collected again in the Olympics, in the streams around Lake Cushman. One specimen was taken from Craggy Peak, Siskiyou Mountains, northern California and several in the Cascades of Washington on the slopes of Mt. Rainier. The locality in which we discovered our specimens lies to the north of Mt. Rainier about 45 miles in a straight line, and establishes a further extension of the range of the species.

The toads were taken among the fallen timber and underbrush, on the wooded mountain slope in an area of larch, hemlock and cedar trees. This is interesting to note, since all the specimens heretofore reported have been captured either in or near pools or under the rocks and along the banks of streams. Ours were not captured in water or at very close proximity to a stream. There had, however, been a very heavy rain the night before the day the toads were taken and the moss, brush and trees were wet.

The males possess the characteristic "tail" as well as dark sexual excrescences on the first two fingers, on the forearm and on each side of the breast. The occurrence of the excrescence on the breast has not been noted before and in this respect, as well as the position of those on the forearm and fingers, *Ascaphus* resembles the figure of the male *Pelodytes punctatus* (Boulenger, "The Tail-less Batrachians of Europe," pt. I, p. 183) of the family Pelobatidae. In its own family (Discoglossidae) the character of the sexual excrescences seems to approach more nearly to *Bombinator*.

The base of the so-called "tail" and the femoral region are papillose. The vent is situated ventrally and at the tip of the "tail." These characters would indicate that that process is an organ of copulation.

The finding of the males with these sexual characters, on the 21st of September, the latest record yet reported, seems to indicate that this species retains such features late in the year, as is known to be true, of its relatives in Europe.

The specimens respectively measure:—snout to anus, 50mm. female; 36mm., 39, males; "tail" 7mm., 8mm.; width of head 16.5mm., female, 14mm., 15mm., males; hind limb 64mm. female, 59mm., 63mm., males.

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An additional record of the occurrences of *Ascaphus* has already been cited in Copeia No. 40. The specimen came from Red Creek in the Santiam National Forest, Linn County, Oregon, at an altitude of 3,000 feet.

Mr. Phillips G. Putnam, of Lake Cushman, Washington, in a letter of August 29, 1921, sent the editors the following notes which, although not intended for publication, confirm and supplement the above observations and may well be given here. "When I went up the Skokomish River, I expected to get a lot of *Ascaphus*, but my first day's collecting yielded me only two specimens. I was at a loss to understand such poor luck, but a few days before we had had a heavy rain, sopping the forests so that they reeked with water. I thought that the frogs might have forsaken the creek for the wet mossy soil. Further examination showed that the *Ascaphus* had left the creeks and were wandering about on land. I found four away from water, one of which had not begun to absorb the tail, and was over 100 feet from water. However, to collect the frogs in the forest was very difficult, as it was too much like looking for a 'needle in a hay stack.' I have always had the best luck collecting during a long dry spell. Now I know the reason to be that when it is wet, what few of them there are leave the water, and during a dry spell, lack of moisture forces them back again to the water."

—G. K. N.

ARE YOUNG SNAKES EVER SWALLOWED FOR PROTECTION?

The papers recently published in *Copeia* on the question of snakes swallowing their young for protection were very interesting to me, for, like many